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ABSTRACT

This report describes and evaluates the bilingual education program provided by the Language Arts Resource Center for high school students of limited English proficiency whose dominant language was Chinese or Korean. The program served students in the attendance area of Newton High School in Queens, New York City, as well as students at six consortium schools in Queens. As implemented in 1980-81, the program provided instruction in English as a Second Language; native language instruction; and bilingual coursework in science, social studies, language arts, and physical education. Aside from instruction, program activities included curriculum and materials development, staff development, counseling and testing services, and opportunities for parent and community involvement. Evaluation showed that students had generally favorable attitudes toward the program and demonstrated academic achievement gains in all areas assessed. The report includes recommendations for greater program effectiveness. (MJL)

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FINAL EVALUATION REPORT

E.S.E.A. TITLE VII

Grant Number: G007804261

Project Number: 5001-56-17607

N.Y.S. Chapter 720

Project Number: 5001-56-18401

NEWTOWN HIGH SCHOOL

QUEENS CHINESE/KOREAN BILINGUAL

LANGUAGE ARTS RESOURCE CENTER

1980-1981

Principal:
Mr. Joseph Weintraub

Director:
Dr. Margaret Pan Loo

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QUEENS CHINESE/KOREAN BILINGUAL
LANGUAGE ARTS RESOURCE CENTER

NEWTOWN HIGH SCHOOL

Location:	48-01 90th Street Elmhurst, Queens
Year of Operation:	1980-1981
Target Languages:	Chinese, Korean
Number of Students:	387 students (297 Chinese, 90 Korean)
Principal:	Mr. Joseph Weintraub
Program Director:	Dr. Margaret Pan Loo

I. DEMOGRAPHIC CONTEXT

SITES

The Queens Chinese/Korean Bilingual Language Arts Resource Center is housed in the Newtown High School building in the Elmhurst-Corona section. The Center also provides ancillary services to students at that school, as well as at six consortium schools in Queens:

-- William Cullen Bryant High School
-- John Bowne High School
-- Flushing High School
-- Forest Hills High School
-- Hillcrest High School
-- Jamaica High School

Site selection was based on the number of Asians, primarily of the Chinese and the Korean ethnic groups settled and settling in Queens. The area which Newtown High School serves has become a point of concentration for Asian and other immigrant groups, a multi-cultural and multi-ethnic community.

The center office is housed in a classroom which is used exclusively for the program. The project director and all the staff have separate working desks and access to office machines. However, the office is extremely overcrowded, and on several visits to the office, the evaluator felt that the space was less than suitable to do office work and to counsel students. Desks, instructional materials, and machines occupy almost all the space, and little room is left for other purposes.

CONTEXT

Newtown High School is located in a serene residential area of one-, two-, and three-family houses, some of which were built recently. This area is characteristic of a low-middle-income working class neighborhood of multi-racial and multi-ethnic backgrounds.

Ethnically, the area is composed of 17 percent Asian, 40 percent Hispanic, 30 percent white, and 13 percent black families. The Asian population consists of immigrants from Korea, China, Taiwan, Hong Kong, and Southeast Asia, mostly Vietnamese of Chinese parentage. There has been a steady growth of the Asian population in Queens which shows no sign of recession.

Most of these Asians have come to the United States with minimal economic resources, and with little or no understanding of English. Although many do have a background of secondary or higher education in their country of origin, the economic and cultural handicaps preclude them from getting better paying jobs. Their labor market is limited to

menial work, or small family enterprises; and generally both husband and wife work to earn a livelihood.

High school children of these immigrants tend to use their native languages at home and in their community. Use of English outside of school is extremely limited, and socializing with English-speaking classmates is not frequent. While watching television or listening to radio does expose them to English, it is also reported that both parents and students continue to read literature in their native languages.

II. STUDENT CHARACTERISTICS

ELIGIBILITY

The program is designed to provide bilingual education to Chinese- and Korean-dominant students in the attendance area of Newtown High School and the consortium schools. Students who live outside these areas are also permitted to attend the program when they are referred to the school by the High School Placement Office. Approximately 95 percent of students being served live in the attendance area.

One or more of the following criteria have been used to determine eligibilty for participation in the program.

1. scoring at or below the 21st percentile on the Language Assessment Battery;
2. request by parent or guardian for placement in the program;
3. referrals by the High School Placement Office;
4. judgment of bilingual staff after interview with students; and
5. referrals by teachers, counselors, social worker, and other school or community professionals.

ETHNIC COMPOSITION

The ethnic composition of Newtown High School as a whole in 1980-81 was approximately 38 percent Hispanic, 16 percent black, 17 percent Asian, and 29 percent others.

The program serves a total of 387 students: 297 Chinese-dominant and 90 Korean-dominant. All were foreign born. The Chinese-dominant students are from Hong Kong, Taiwan, China, Laos, Thailand, and Vietnam. Table 1 presents a breakdown by country of origin and grade of program students for whom information was provided. Salient in the ethnic composition is the marked increase of Indo-Chinese (136), representing 37 percent of the students in the program. There were about 123 students from Vietnam at Newtown High School, most of them ethnic Chinese.

Table 1. Number and percentages of students by country of birth and grade. (N=364)

COUNTRY OF BIRTH	GRADE 9	10	11	12	TOTAL N	PERCENT
Korea	22	35	13	4	74	20%
Vietnam	61	57	5		123	34%
Thailand	3	1			4	1%
Laos	6	3			9	2%
People's Republic of China	40	12	2		54	15%
Taiwan	15	26	13	2	56	16%
Hong Kong	8	16	14	4	42	12%
Other "Asia"		1	1		2	
TOTAL	155	151	48	10	364	100%
	43%	41%	13%	3%		

- The highest percentage of students (34 percent) was born in Vietnam.
- The second highest percentage of students (20 percent) was born in Korea.
- Only one student was born in the United States.

A breakdown of bilingual program students by native language and grade is presented in Table 2.

Table 2. Number and percentages of students by native language and grade. (N=362)

NATIVE LANGUAGE	GRADE 9	GRADE 10	GRADE 11	GRADE 12	TOTAL
Vietnamese (ethnically Chinese)		58	54	4	116 (32%)
Korean	20	35	13	4	72 (20%)
Chinese (Mandarin)	20	33	16	2	71 (20%)
Chinese (Cantonese)	49	27	15	4	95 (26%)
Other Asian	7	1			8 (2%)
TOTAL	154 43%	150 41%	48 13%	10 3%	362 (100%)

- The highest percentage of bilingual program participants are Vietnamese (ethnically Chinese) students.
- Mandarin- and Cantonese-speaking Chinese students represent 46 percent of the total number of program students.
- A high proportion of Vietnamese (ethnically Chinese) and Chinese (Cantonese) students are enrolled in the lower grades, particularly in the ninth grade.

Because there may be selective personal and environmental pressures on students in urban communities, the composition of the student body may vary from school to school and grade to grade within a school. Table 3 presents the distribution of bilingual program students by grade and sex.

Table 3. Number and percentages of students by sex and grade. (N=365)

GRADE	SEX: MALE N	MALE %	FEMALE N	FEMALE %	TOTAL N	PERCENT OF ALL STUDENTS
9	96	62%	59	38%	155	43%
10	85	56%	67	44%	152	41%
11	18	37%	30	63%	48	13%
12	4	40%	6	60%	10	3%
TOTAL	203	56%	162	44%	365	100%

- The student population decreases as the grade level increases from 43 percent in the ninth grade to 3 percent in the twelfth grade.
- While the percentages of male students are higher than the percentages of female students in the ninth and tenth grades, male students are less numerous than female students in the eleventh and twelfth grades.
- Table 3 indicates a strong tendency for the proportion of females to males to rise with grade level.

Because so many of Newtown bilingual students are immigrants, (many having arrived less than a year ago), their educational histories may vary considerably. Many have suffered interrupted schooling, or, because of a lack of educational opportunities in their countries of orgin, have received fewer years of education than their grade level would indicate. Bilingual program students are reported by age and grade in Table 4.

Table 4. Number of students by age and grade.

AGE	GRADE 9	GRADE 10	GRADE 11	GRADE 12	TOTAL
14	3				3
15	21	1			22
16	43	27			70
17	29	36	16		81
18	22	35	15	6	78
19	21	30	7	1	59
20	11	14	8	1	34
21	4	6	3	2	15
22					
23		1			1
24		1			1
TOTAL	154	151	49	10	364
Number of overage students	130	123	33	4	290
Percent of over-age students	84%	82%	67%	40%	80%

*Shaded boxes indicate the expected age range for each grade.

.80 percent of the program students are overage for their grade, a proportion much higher than the 65 percent figure commonly found by O.E.E. in bilingual programs in 1980-1981.

.The highest percentage of overage students occurs in the ninth grade.

Information provided by the program on students' birthdates reveals the following: the mean age (age of the student in June 1981)

of overage students in the ninth grade is 17 1/2 years, in the tenth grade, 18 1/2 years, in the eleventh grade, 19 years; and in the twelfth grade, 20 1/2 years. The fact that so many students are overage may have implications for interpreting student outcomes and setting standards for expected rates of growth. These are students who have missed a year or more of school, whose grade placement may reflect their age more than their prior educational preparation. As a result they may have a lack of cognitive development in their native language which must be addressed as it has implications for their ability to acquire oral and literacy skills in English.

Additional information on overage students is presented in Table 5 which provides a breakdown of overage program students by native language and grade.

Table 5. Overage students by native language and grade. (N=287)

NATIVE LANGUAGE	TOTAL N	TOTAL %	PERCENT OVERAGE STUDENTS FOR THEIR GRADE GRADE 9	GRADE 10	GRADE 11	GRADE 12
Vietnamese (ethnically Chinese)	107	92%	93%	91%	100%	
Korean	52	72%	70%	71%	85%	50%
Chinese (Mandarin)	47	66%	75%	73%	44%	50%
Chinese (Cantonese)	76	80%	89%	81%	67%	25%
Other Asian	5	62%	57%	100%		
TOTAL	287	79%				

- The highest percentage of overage students occurs among the Vietnamese (ethnically Chinese) participants.
- Cantonese-speaking students constitute the second highest percentage of overage students.
- These exceptionally high percentages of overage students are indicative of the disrupted educational experiences of the Oriental students, especially the Vietnamese (ethnically Chinese).

LANGUAGE PROFICIENCY (ENGLISH AND THE NATIVE LANGUAGE)

Characteristic of non-English speaking high-school-aged immigrants is the serious language barrier which causes a high rate of academic failure and drop-out as well as severe psychological distress.

The director judged the range of proficiency in English to be from very limited skills to a partial knowledge of English. All students scored below the 21st percentile on the Language Assessment Battery; they emigrated to the United States with little or no knowledge of English, and most need bilingual educational services in order to function academically.

The range of proficiency in the native language, too is narrow. Most students are at approximately two grades below level. These levels were determined by a teacher/counselor who tests and programs incoming students. The students were placed in the ninth, tenth, and eleventh grades, but most of them demonstrated levels of proficiency comparable to the seventh, eighth, and ninth grades in their native countries.

DIVERSITY

The Asian immigrants and their children are culturally and linguistically heterogeneous, especially the Chinese-speaking. They come from several geographical areas with different linguistic backgrounds. They speak Cantonese, Mandarin, and Toishanese. Those who speak Toishanese generally can communicate in Cantonese.

The target population is relatively diverse in terms of their social backgrounds. While some students came to this country with families, others including the ethnic Chinese Vietnamese (some of whom are know as "Boat People") have experienced political, social, and psychological vissicitudes, which have disrupted their family life.

III. PROGRAM DESCRIPTION

BACKGROUND

The Queens Chinese/Korean Bilingual Language Arts Resource Center has been offering instructional and supportive services to eligible students enrolled at Newtown High School, and also providing ancillary services to students enrolled at the six high schools which were selected as consortium sites. In 1980-81, the program was in its third year of operation.

The number of Asian students in New York City's academic-comprehensive high schools had increased from 3,443 (1.5 percent) in 1968 to 7,776 (2.7 percent) in 1977. Last year's evaluation report on the history of bilingual services to Chinese and Korean students indicated reading levels and rates of non-graduation at the seven consortium schools which underscored the need for bilingual education. In response to the alarming statistics, the program was introduced in 1978 to provided English language instruction, instruction in the native language, and bilingual coursework in content areas to Chinese- and Korean-dominant students, particularly those in the ninth and tenth grades.

The program originally aimed at achieving the following goals:

--producing bilingual curriculum materials;

--providing opportunities for staff development for Asian bilingual teachers;

--offering supportive services to Asian students both at Newtown and at the other consortium high schools;

--creating and supporting parental involvement; and

--offering E.S.L. classes and citizenship education materials to parents.

GOALS

The immediate goal of the program is to meet the academic needs of limited English proficient (LEP) Chinese and Korean students by preparing them in English and the content areas so that they can transfer into the mainstream in a minimum of two years.

The long-term is to promote high school graduation, the pursuit of higher education, and/or entry into the job market. The program further seeks to cultivate on the part of students a positive and enhanced self-image and to foster understanding of a culturally pluralistic American society.

To attain these goals, the program has employed a comprehensive approach to instruction in both English and the native language; it incorporates instruction in the history and culture of the United States and the history and culture of the geographic areas associated with the dominant languages of the students.

ORGANIZATION AND STAFF

Presently the program functions under the supervision of the principal of Newtown High School. The principal delegates supervisory responsibility primarily to the assistant principal of administration in matters related to personnel and finances, to the assistant principals of subject areas in matters related to curriculum and teacher supervision, and the assistant principal of guidance in matters related to student admission and programming.

The program director has responsibility for the coordination of all facets of the program including supervision of program staff, instruction, training, and fiscal matters. She relates to all assistant principals directly, and most frequently with those in charge of administration and guidance, and to the assistant principal of foreign languages, who is in charge of E.S.L. and native language instruction. She reports to the principal regularly. (Chart 1 locates the program within the school organization.) The director holds a Ph.D. degree in educational anthropology, New York City teaching certification, and has extensive experience in bilingual education. She is bilingual Chinese/English.

Two resource specialists are responsible for matters related to curriculum, teaching, and testing. One culture resource specialist provides assistance and culturally-relevant materials to monolingual teachers working with program students. One grade advisor is responsible for students' admissions, testing, and instructional programming as well as counseling. Two family assistants work closely with the students' parents, maintain frequent communications with the homes, and assist parents when there are language problems in school-related matters. Five paraprofessional teacher assistants aid teachers in classroom instruction and provide supportive services to students, such as tutoring those in classes taught in English only.

All program staff hold degrees and city and/or state certification (where applicable) in their professional areas. They are currently engaged in professional development programs, have experience working with bilingual students, and most are native speakers of the students'

Chart 1. Queens Chinese/Korean bilingual language arts resource center: organization within Newtown High School.

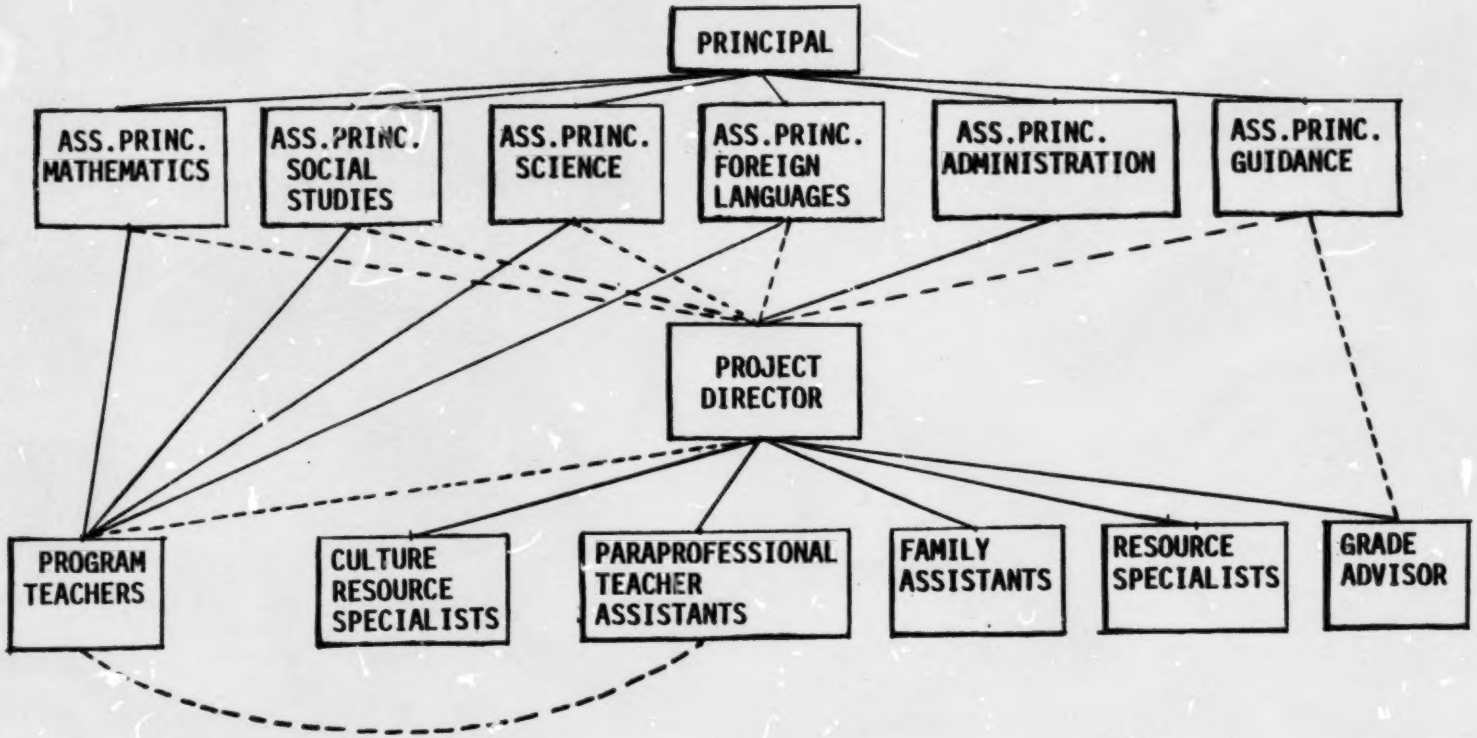

Table 6. Staff characteristics: Program staff bilingual teachers.

STAFF MEMBER TITLE	DATE APPOINTED TO EACH FUNCTION	EDUCATION (DEGREES)	CERTIFI-CATION	LICENSE(S) HELD	YEARS OF EXPERIENCE (MONOLINGUAL)	YEARS OF EXPERIENCE (BILINGUAL)	YEARS OF EXPERIENCE (E.S.L.)
Resource Specialist	7/80	B.A. History M.A. Chinese Ling. M.A. E.S.L.	NYC	Bil. E.S.L. H.S.	1 1/2	1 1/2	3
Resource Specialist	10/80	B.A. History M.A. Education	NYC	Social Studies, Secondary	4 1/2	4 1/2	3
Cultural Specialist	2/31	B.A. Mathematics	NYC	E.S.L. Secondary Math. Junior High	1/2	1/2	11
Teacher/Grade Advisor	10/78	B.A. Mathematics	NYC	Mathematics D.H.S. Mathematics J.H.S.	None	3	4
Teacher Bilingual Social Studies	1/79	B.A. Chemistry M.A. E.S.L.	NYC	Bilingual Social Studies H.S.	3	3	1/2
Teacher Bilingual Chinese	1/81	B.A. Chinese Lit. M.A. Linguistic Teaching	NYC	Chinese D.H.S.	13	1	None
Teacher Biligual Korean	2/79	B.A. Political Science M.A. Christ. Education	NYC NYS	Social Studies Social Studies	6	2	1
Teacher Bilingual Science	4/81	B.A. Micro. Biology	NYC	Bilingual Science	8	1	None
Teacher Bilingual Social Studies	9/79 1/81	B.A. Chinese Lit. M.A. Asian Studies	NYC	Bil. Social Studies	None	4	2
Paraprofessional	3/80	B.A. Western Literature & Language		None	1/2	2	3 months
Paraprofessional	10/79	B.A. Biology		None	4	1	None
Paraprofessional	3/81	B.A. History M.A. Economic		None	7	4 months	None
Family Associate	10/78	B.S. Architec. English M.A. Jap. Eng. Bil. Ed.		None	14	2	None

native languages. Table 6 presents program staff and bilingual teachers' characteristics. An unusual feature of the staff is that all paraprofessionals hold B.A. or M.A. degrees in content areas.

FUNDING

Table 7 illustrates the funding sources of the program's instructional component by subject area, target language, and number and type of staff. Table 8 illustrates Title VII funding distribution for the non-instructional component by staff and function performed.

Table 7. Funding of the instructional component.

SUBJECT AREA	TARGET LANGUAGE	FUNDING SOURCE	NUMBER AND TYPE OF STAFF	
			TEACHER*	PARAPROFESSIONAL
E.S.L.		Tax levy	4.0	2
Native language	Chinese	Tax levy	1.0	-
	Chinese	Chapter 720	0.8	1
	Korean	Tax levy	0.4	-
	Korean	Chapter 720	0.4	1
Social Studies	Chinese	Chapter 720	1.6	1
	Korean	Chapter 720	0.4	1
	Korean	Tax levy	0.4	-
Science	Chinese	Tax levy	1.0	-
	Chinese	Chapter 720	0.2	1
	Korean	Tax levy	0.2	-

*1 = full time position, .2 = one class taught, .4 = two classes, etc.

- .A total of seven teaching and two paraprofessional full-time positions is funded by local tax-levy money.
- .A total of 3.4 teaching and five full-time paraprofessional positions is funded by Title VII and Chapter 720 of the New York State laws.
- .Instructional staff offer services in E.S.L., the native languages, and major subject areas of social studies and science.

Table 8. Title VII funding of the non-instructional component.

FUNCTION	PERSONNEL: NO. & TITLE(S)
Administration & Supervision	1 Project Director
Curriculum Development	2 Chinese/Korean Bilingual Resource Specialists
Supportive Services	1 Grade Advisor
Staff Development	1 Consultant (Chinese)
Parental & Community Involvement	1.6 Family Assistant (1.0 Korean; 0.6 Chinese) 3 Parent Trainers (part-time staff)

- .All funding of the non-instructional component is provided by Title VII.
- .Personnel time distribution is allocated to each language group according to student number and need.

PROGRAM-SCHOOL RELATIONS: INTERVIEW WITH PRINCIPAL

An interview with the principal revealed that the school administration is vigorous in supporting the validity of a bilingal program, strives to realize the short-term and long-term goals of the program, and endorses its general policies toward implementing those goals.

As the principal indicated, the bilingual program is a "mini-school within the total school", and is a "self-contained program" including social studies and science. The students in this program are incorporated, however, in the mainstream in the areas of mathematics, physical education, music, art, and E.S.L.

Since there was a successful bilingual program serving Hispanic students at Newtown High School, the need for such a program for Chinese- and Korean-dominant students was readily accepted by the school administration and the faculty. The principal stressed his on-going support for the program and the manner in which it has been administered.

Furthermore, the principal stated emphatically that, after Title VII funding ends, he would expect the program to continue with tax-levy funding.

School Support For The Program

The principal has been supporting the program by providing tax-levy teachers, the E.S.L. program, information relevant to the school and bilingual education, and of great importance securing the cooperation of the staff in other departments. The principal has also been instrumental in encouraging harmonious relationships between the mainstream students and the bilingual students.

IV. INSTRUCTIONAL COMPONENT

PROGRAMMING AND TRANSITION

The Queens Chinese/Korean Bilingual Program is a mature program; major changes in the instructional program have not occurred during 1980-1981. Therefore, this discussion parallels that of the previous report.*

The project director and the staff have prepared instructional programs for the participating students at Newtown High School and, in some cases, for students at the consortium schools emphasizing transition to mainstream within two years. Programming is, in general, uniform for ninth and tenth grade bilingual students. A typical instructional program for entering students includes E.S.L. (double period), bilingual science, bilingual social studies, native language arts, and physical education.

Students receive bilingual content-area instruction in the ninth and tenth grades, and generally enter appropriate level mainstream classes thereafter except those who can not partake of English language instruction. "Tracking" or "streaming" is done based on students' grade level and ability in E.S.L. and the native language. In social studies and science, "tracking" is done according to grade level and whether Chinese bilinguals are Mandarin or Cantonese.

Almost all the bilingual students have taken two or more content-area courses in English. About 30 percent of the students take content-

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*O.E.E. Evaluation Report: Newtown High School, Queens Chinese/Korean Bilingual Language Arts Resource Center: 1979-1980, pp 9-10.

area courses in their native language after completing E.S.L. Approximately 100 students, while taking all of their content areas in English, still receive supportive bilingual education services. Most of these are eleventh and twelfth graders.

Supportive services include bilingual counseling, bilingual tutorials, bilingual instructional materials, extracurricular sports, and cultural and educational club activities.

Students who arrive in the United States with credits for, or equivalent to, the ninth and tenth grades enter the eleventh. However, they receive instruction in E.S.L. and take bilingual courses in content areas if school records indicate deficiency in graduation requirements. Eleventh graders also enroll in bilingual social studies classes if they lack required credits in that area.

In their first year in the program, students generally do not take mathematics courses. The participating students who are reasonably well prepared in this area take math courses in the mainstream, but they need intensive E.S.L. instruction and tutorial assistance in order to understand the terminology of mathematics instruction. The school has offered mainstream students transitional courses such as speech accent classes and social studies for foreign students.

Students are usually amenable to mainstreaming. They feel it enhances the image that they are successful educationally. When parents request the mainstreaming of their children, a program staff member meets with them and explains the situation and conditions for mainstreaming.

Parents are said to be generally understanding and supportive of their children's participation in the bilingual program.

INSTRUCTIONAL OFFERINGS

The course offerings are diverse in content as well as level of difficulty.

English as a Second Language (E.S.L.)

Students who are LEP, and dominant in Chinese, Korean, Spanish, and other languages are integrated in E.S.L. classes. There are four levels of competence in E.S.L. classes. On the average, the least advanced students, levels one and two, receive two periods of instruction daily or 10 periods per week. As they progress and enter levels three and four they are offered English Transitional Reading (ETR) one period daily or five periods weekly. Table 9 outlines E.S.L. offerings.

Table 9. Instruction in English as a second language and transitional reading.

COURSE TITLE AND LEVEL: FALL AND SPRING	NUMBER OF CLASSES*	CLASS PERIODS PER WEEK
E.S.L. 1	4	10
E.S.L. 2	12	10
E.T.R. 3	6	5
E.T.R. 4	7	5
E.T.R. 5	1	5
E.T.R. 6	2	5

*Average classes register of 27 students included students of all non-English language groups.

Native Language Arts

Chinese-dominant students received instruction in Mandarin. There were nine classes offered during 1980-81, ranging in level from 1 to 8, one period daily. Korean students received instruction in Korean language arts. Six classes were offered, ranging in level from 1 to 8 one period daily. The curriculum and materials in use in these courses were primarily developed with Title VII and Chapter 720 funds. Table 10 outlines offerings in native language arts.

The level at which the courses in the native language were taught was thought to be comparable to a seventh, eighth, and ninth grade in the students' countries of origin. The program aimed not only at preserving the students' native languages, but also at developing native language skills considered necessary in order to facilitate transition to a second language.

Table 10. Instruction in native languages.

COURSE TITLE AND LEVEL: FALL AND SPRING	NUMBER OF CLASSES	AVERAGE CLASS REGISTER
Chinese 1, 2	3	25
Chinese 3, 4	3	23
Chinese 5, 6	2	20
Chinese 7, 8	1	20
Korean 1,2	2	18
Korean 3,4	2	17
Korean 5/7, 6/8	2	14

*All classes taught one period per day, five times per week.

Bilingual Instruction in Content Areas

The center provides bilingual instruction in science and social studies. Students take mathematics in the mainstream in English with the assistance of the program's paraprofessionals. Although there is no explicit language policy, it is estimated that the use of Mandarin, Cantonese, or Korean fluctuates from 75 to 90 percent of class time. All content-area courses taught in the non-English languages (general science, biology, world studies, world history) are considered to be "major" courses, that is, required for graduation. Their content corresponds with mainstream curriculum, and the material used in the students' native languages are reported by the director to be appropriate to the students' level of comprehension. See Table 11 for a listing of content-area courses offered in the target languages.

Table 11. Bilingual instruction in content areas.*

COURSE TITLE	NUMBER OF CLASSES	AVERAGE REGISTER
Cantonese World Studies 2	2	45
Mandarin World Studies 2	1	25
Korean World Studies 2	1	12
Cantonese General Studies 2	2	48
Mandarin General Studies 2	1	26
Korean General Studies 2	1	18
Cantonese Biology 2	2	31
Mandarin Biology 2	1	20
Cantonese World History 2	1	31
Mandarin World History 2	2	34
Korean World History 2	1	12

*All courses offered bilingually were taught 40 minute daily (three hours and 20 minutes per week) for one credit unit toward graduation requirements. Materials used in the native language and English corresponded with those in use in the mainstream classes. English was used for 10 to 25 percent of class time.

Mainstream Classes

Students are enrolled in mainstream classes depending on their ability, need, choice, and availability of courses required for graduation. Table 12 shows students' enrollment in these classes, which met for five periods (three hours and 20 minutes) weekly, and the criteria used to determine participation. Occasionally, program students are enrolled in required courses in the mainstream classes, despite their English proficiency limitations, because the course is not offered in their native language.

Table 12. Mainstream classes in which program students are enrolled, fall 1980.

COMPONENT/SUBJECT	NUMBER OF STUDENTS	CRITERIA FOR SELECTION
Algebra	34	Placement Test
Geometry	14	Placement Test
11th year Math	6	Placement Test
App. Math	7	Placement Test
Fundamental Math	48	Placement Test
Music	17	Required
Art	23	Required
E.S.L. Typing	7	Elective
Music and Art 2R	24	Placement Test

V. NON-INSTRUCTIONAL COMPONENT

CURRICULUM DEVELOPMENT

The center has continued to expand the scope of curriculum development with one specialist for Chinese, and one for Korean, devoting part of their time to this task. Both are funded by Title VII.

During the 1980-81 year, the following resources and materials for the bilingual program were developed by the program staff and are presently in use:

--bilingual world studies in Korean and Chinese;

--bilingual world history in Korean and Chinese;

--bilingual general science in Korean and Chinese;

--bilingual biology in Chinese;

--tenth year mathematics in Chinese;

--chemistry materials translated;

--Chinese language arts materials;

--Korean language arts materials.

STAFF DEVELOPMENT

Members of the center have participated in various activities for staff development. The project director conducted pre-service and in-services training conferences for staff members at the beginning of the term. In addition to participating in school-wide faculty meetings, departmental meetings, and bilingual faculty meetings, the center had workshops on philosophical, ideological, and aesthetic foundations of China which were conducted by consultants. Instructions on Chinese calligraphy and brush painting techniques open to all Newtown staff members were offered three times during the past year.

The project director and members of the center also participated in or attended, a number of workshops and professional conferences and symposia held outside school. In addition to these staff development activities, several members of the center were enrolled in university courses in education, bilingual education, or administration to improve their teaching and professional preparation.

Classroom obervation and teacher supervision which is technically the responsibility of the chairperson of the foreign language department, has been done in consultation with the project director.

AFFECTIVE DOMAIN

The center has encouraged staff members to seek outside resources for students, and make themselves available to the students not on academic matters but also for extracurricular activities. Close rapport with students and joint participation in activities have helped to alleviate the sense of isolation and alienation which many of the new students would experience when they arrived at Newtown.

Even those students who were originally skeptical of bilingual education have begun to realize the value and the need for such services and to cherish their relationships with staff members. Conversations with a number of students reveal that, while expressing the desire to join the mainstream classes at soon as possible, they have in general developed a positive attitude toward the bilingual education program.

A large number of bilingual students has activily participated in students' clubs, particularly the Chinese cultural club and Korean cultural club. In addition, there are the Oriental and the Asia cultural

clubs. The program students as well as the mainstreamed students are aware of the merits of joining these clubs and of the recognition extended by the school administration and staff, the community, and the Board of Education for their achievement in educational and cultural activities.

In an attempt to better understand the factors underlying the movement of students through and out of the program, data were collected on the reasons given for students leaving the program during the 1980-1981 school year (see Table 13).

Table 13. Number of students leaving the program by grade and sex.

REASON FOR LEAVING	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL
	F	M	F	M	F	M	F	M	
Fully mainstreamed	3	5	5	2	15	13	3	1	47
Discharged/ transferred to altern. program		1		2					3
Transferred to another school	5	10	6	19				1	41
Discharged (Job)	3	3	3	1					10
Discharged (Reason Unknown)		2	2	1	1				6
Truant		1		7					8
TOTAL	11	22	16	32	16	13	3	2	115

- Approximately 31 percent of the total program population left during 1980-1981.
- 47 students (13 percent of the total program population) were fully mainstreamed, the majority of whom were in the eleventh grade.
- These data do little to explain the increasing proportion of female students in the upper grades, seen in Table 3.

SUPPORTIVE SERVICES TO STUDENTS

A Chinese-speaking bilingual teacher/counselor funded by Title VII has assisted participating students with academic and other problems. This teacher/counselor has worked closely with the family-community liaisons to help students and their families resolve problems which might disrupt their school life.

The teacher/counselor also has been responsible for testing and programming incoming students, and has done field work at the consortium schools. The supportive services are particularly useful to students who arrive with academic backgrounds below average at Newtown.

Counseling has been provided by teacher/grade advisors in the areas of E.S.L., social studies, and science.

Educational assistants have offered supportive tutorial services an average of one period a day to students who needed help in mathematics, which all the students take in the mainstream. In the 1980-1981 year, it is estimated that 383 students received these supportive services. Also offered were all the ancillary services previously described. Possibly as a result of these supportive services, only eight students in the program were suspended for truancy during the 1980-1981 year.

PARENT INVOLVEMENT

The program has been always open to the parents for their review. The center has from time to time invited parents to school to speak to the teachers on curriculum matters and teaching techniques to be used at home to help their children. In the past year twelve parents came to school for this purpose. The center has also encouraged them to participate

in the English training program to improve their knowledge not only of English but also of the school and its activities. About 60 parents were enrolled in English training classes and the class for citizenship with a perfect attendance record. Eight parents joined students on a school trip.

It should be noted that the number of parents and adults interested in English and other classes in greater than expected. Indeed, they have requested more classes and other educational and social services particularly E.S.L. for parents.

In the past year, three hourly-paid teachers funded by Title VII taught three classes for the parents and adults (two E.S.L. classes and one citizenship class). Each teacher taught one class (three hours a week per class).

The Parent/Student/Community Advisory Committee consists of seven members who were selected by invitation or recommendation. Its primary function is to review, recommend, and evaluate the policies of the program. The committee has met at least once a month.

COMMUNITY INVOLVEMENT

The center has emphasized the importance of community and parental involvement, for the program's success to a great extent depended on their cooperation. Information pertaining to the program has been disseminated through various channels such as the local ethnic churches, ethnic newspapers, and other media.

Two family-community liaisons funded by Title VII have worked closely with the bilingual students and community in the attendance areas of Newtown High School and the consortium schools. One of them is Chinese-speaking, and the other, Korean-speaking.

These family-workers have maintained a close working relationship with the guidance personnel and the deans' offices at the consortium schools. As previously indicated, they have offered help to students and parents by translating materials whenever needed, arranging meetings between teachers and parents, acting as interpreter, and maintaining communication between home and school. They also helped maintain communication between American English-speaking teachers and Chinese and Korean parents, and visited students' homes.

Both community and parents have joined the staff members and students in undertaking extensive cultural activities. They were co-operative in preparing the major events such as a community festival, the celebration of the Chinese New Year, Asian night, and inter-cultural night. During the 1980-81 year, a Chinese-Korean bilingual concert was held at Newtown High School which 350 people attended. In Feburary, 1981 the center sponsored the Chinese heritage and culture week held at the Board of Education which attracted more than 300. In March, 1981, a Chinese spring festival was jointly sponsored by the center and Queensborough Community College. About 500 people attended this event.

The program's staff helped the parents and community understand the American school system and the goals and the need of bilingual education by maintaining close communications with them.

Some of the parents and students who initially were unable to understand the difficulty experienced in handling academic work in English and were skeptical of bilingual education, have begun to appreciate the benefits of an intensive E.S.L. program and a transitional bilingual education. It is estimated that an average of 200 to 250 parents benefit from the services and activities sponsored by the center yearly.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement in 1980-1981.

Students were assessed in English language development, growth in their mastery of their native language, mathematics, social studies, and science. The following are the areas assessed and the instruments used:

Reading in English -- Stanford Achievement Test (total reading) primary Level II, Form B

Reading in Chinese -- Teacher-made tests

Reading in Korean -- Teacher-made tests

Mathematics performance -- Teacher-made tests

Science performance -- Teacher-made tests

Social studies performance -- Teacher-made tests

Native language arts performance -- Teacher-made tests

Attendance -- School and program records

The following analyses were performed:

On pre/post standardized tests of English reading achievement and teacher-developed tests of native language achievement statistical and educational significance are reported:

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant.

This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen.[1] An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the follow-

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[1] Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

ing effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

The results of the criterion referenced tests in mathematics, social studies, science, and native language arts are reported in terms of the number and percent of students achieving the criterion levels set for the participants (65 percent passing). Results are broken down by language of instruction.

Information is provided on the attendance rate of students participating in the bilingual program compared with that of the total school population.

The following pages present student achievement in tabular form.

Table 14. English reading achievement for Korean, Vietnamese, and Chinese students.

Significance of mean total raw score differences between initial and final test scores in English reading achievement of students with full instructional treatment on the Stanford Achievement Test (total reading) primary Level II, Form B.

Grade	N	Pre-test Mean	Pre-test Standard Deviation	Post-test Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	p	ES
9	95	44.7	17.5	53.4	16.5	8.7	.84	8.92	.001	.92
10	88	56.8	15.3	66.2	13.4	9.4	.85	10.92	.001	1.16
11	33	74.5	12.3	80.8	10.8	6.3	.84	5.44	.001	.95
12	5	75.6	12.1	80.2	8.4	4.6	.99	2.67	NS	1.19

- Students in grades 9, 10, and 11 demonstrated significant growth in English reading achievement.
- Students in twelfth grade failed to demonstrate a statistically significant gain.
- All grade levels demonstrated large educationally significant reading achievement gains.

Table 15. Native language reading achievement for Chinese-speaking students.

Significance of mean total raw score differences between initial and final test scores in native language reading achievement of students with full instructional treatment on teacher-made tests.

Grade	N	Pre-test Mean*	Pre-test Standard Deviation	Post-test Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	p	ES
9	42	75.7	17.6	88.4	15.1	12.7	.91	11.04	.001	1.70
10	29	83.0	9.1	96.7	4.5	13.7	.39	8.75	.001	1.62
11	21	86.3	6.1	97.9	3.5	11.6	.03	7.65	.001	1.67
12	5	87.6	3.9	99.6	0.5	12.0	.37	7.17	.001	3.21

*possible score range: 0-100

- Chinese-speaking students demonstrated large statistically and educationally significant gains in native language reading achievement.
- The test was of questionable reliability for students in grade 10 through 12 due to a ceiling effect -- that is, the test is too easy.

Table 16. Native language reading achievement for Korean-speaking students.

Significance of mean total raw score differences between initial and final test scores in native language reading achievement of students with full instructional treatment on teacher-made tests.

Grade	N	Mean*	Pre-test Standard Deviation	Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	p	ES
9	13	94.6	5.8	95.9	4.4	1.3	.99	2.85	.05	.79
10	19	96.9	3.5	97.7	2.8	0.8	.99	4.02	.001	1.71
11	9	97.7	2.1	98.2	1.3	0.5	.96	1.89	NS	.63

*possible score range 0-100

- Korean-speaking students in grades 9 and 10 demonstrated significant statistical and educational gains.
- Eleventh grades failed to achieve a statistically significant gain, but demonstrated an educationally significant level of achievement.
- The test was of questionable reliability for students at all grade levels -- that is, the test is much too easy for the majority of students.

Table 17. Native language reading achievement for Vietnamese (ethnically Chinese) students.

Significance of mean total raw score differences between initial and final test scores in native language reading achievement of students with full instructional treatment on teacher-made tests.

Grade	N	Pre-test Mean*	Pre-test Standard Deviation	Post-test Mean	Post-test Standard Deviation	Mean Difference	Corr. Pre/post	t	p	ES
9	42	79.5	16.6	89.6	14.7	10.2	.64	4.91	.001	.76
10	35	79.2	18.6	89.8	16.0	10.6	.89	7.27	.001	1.23
11	3	89.0	1.0	99.7	.58	10.7	.00	16.0	.01	9.24

*possible score range: 0-100

- Vietnamese students at all grade levels demonstrated large significant statistical and educational gains in native language reading achievement.
- Results for eleventh-grade students indicated the presence of a ceiling effect -- that is, the test was too easy for the majority of students.

Table 18. Number and percent of students passing teacher-made examinations in mathematics.

(Courses conducted in English)

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	65	57	88%	78	63	81%
10	87	77	89%	97	80	83%
11	41	41	100%	36	33	92%
12	3	3	100%	3	3	100%
TOTAL	196	178	91%	214	179	84%

- Pass rates exceeded 80 percent in each grade and semester.
- The pass rate is slighly higher in fall.
- The project criterion (65 percent pass rate) was met and exceeded by large margins in each grade and semester.

Table 19. Number and percent of students passing teacher-made examinations in science.

(Courses conducted in English)

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	6	6	100%	17	14	82%
10	25	25	100%	29	22	76%
11	31	30	97%	29	27	93%
12	4	4	100%	2	2	100%
TOTAL	66	65	98%	77	65	84%

- Pass rates exceeded 75 percent in each grade and semester.
- The pass rate is higher in the fall.
- The project criterion (65 percent pass rate) was met and surpassed in each grade and semester.

Table 20. Number and percent of students passing teacher-made examinations in science.

(Courses conducted in the native language)

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	82	76	93%	102	89	87%
10	61	51	84%	62	56	90%
11	1	1	100%	-	-	-
TOTAL	144	128	89%	164	145	88%

- Pass rates exceeded 83 percent in each grade and semester.
- The project criterion (65 percent pass rate) was met and substantially surpassed in each grade and semester.

Table 21. Number and percent of students passing teacher-made examinations in social studies.

(Courses conducted in English)

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	6	6	100%	17	17	100%
10	18	17	94%	26	24	92%
11	35	33	94%	29	29	100%
12	6	6	100%	4	4	100%
TOTAL	65	62	95%	76	74	97%

- The pass rate exceeded 90 percent in each grade and semester.
- The project criterion (65 percent pass rate) was met and substantially surpassed in each grade and semester.

Table 22. Number and percent of students passing teacher-made examinations in social studies.

(Courses conducted in the native language)

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	80	77	96%	103	95	92%
10	75	67	89%	73	61	84%
11	7	7	100%	-	-	-
TOTAL	162	151	93%	176	156	89%

- The pass rate exceeded 83 percent in each grade and semester.
- The project criterion (65 percent pass rate) was met and substantially surpassed in each grade and semester.

Table 23. Number and percent of students passing teacher-made examinations in native language arts.

	FALL 1980			SPRING 1981		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	84	80	95%	112	99	88%
10	85	81	95%	92	82	89%
11	47	46	98%	43	43	100%
12	9	9	100%	7	7	100%
TOTAL	225	216	96%	254	231	91%

- The pass rate exceeded 87 percent in each grade and semester.
- The project criterion (65 percent pass rate) was met and substantially surpassed in each grade and semester.

Table 24. Significance of the difference between attendance percentages of program students (full year, combined group) and the attendance percentage of the school.

Average School-Wide Attendance Percentage: 86.6%

Grade	N	Mean Percentage	Standard Deviation	Percentage Difference	t	p
9	95	97.5	4.6	10.9	23.1	.001
10	96	95.2	15.1	8.6	5.6	.001
11	49	94.9	12.4	8.3	4.7	.001
12	7	97.3	3.5	10.7	8.1	.001
TOTAL	247	96.0	11.3	9.4	13.1	.001

- The total group attendance rate (96 percent) exceeded the school wide rate (86.6 percent) by a very significant margin.
- Attendance rates in each grade were significantly higher than the school-wide rate.
- Student motivation for program participation was very high.

SUMMARY OF FINDINGS

Newtown bilingual students demonstrated impressive academic achievements in all the areas which were reported. Korean, Vietnamese, and Chinese students in grades nine, ten, and eleven scored gains which were highly statistically significant. Twelfth-grade students made good gains from pre- to post-test which, because of the small numbers of students reported, were not judged to be statistically significant. Nevertheless, students at all grade levels demonstrated gains in reading achievement which were of high educational significance.

Students of all language groups achieved very high scores on tests of reading in their native language. Chinese and Vietnamese students at all grade levels, and Korean-speaking students in ninth and tenth grades demonstrated large statistically and educationally significant gains. However, the teacher-made examinations used to assess student achievement in this area were found to be too easy to permit students to fully demonstrate growth.

In mathematics, science, and social studies courses conducted in English, in science and social studies courses conducted in the native language, and in courses in native language arts, program students met and surpassed by a large margin the criterion level of 65 percent passing in each grade and semester.

The overall attendance rate of program students was significantly greater than that of the entire student body, suggesting a high level of student motivation.

VII. CONCLUSIONS AND RECOMMENDATIONS

The Chinese/Korean Resource Center at Newtown High School has been providing invaluable services for the participating students, and ancillary services for the students at the consortium schools.

The goals of bilingual education are clearly defined, and as the evaluator found, there was a positive attitude on the part of the school administration, faculty and staff, and students toward the program, accepting the validity of such a program to meet the needs of students of other than English language backgrounds.

The center has offered bilingual Chinese and Korean classes in content areas such as world studies, world history, general science, and biology. Students are placed in the mainstream classes in mathematics with tutorial assistance. The center has also provided students with intensive instruction in E.S.L.

Considering that the program is only in its third year of operation, there has been an impressive achievement in resources and curriculum development. The scope of preparation and translation of resources and materials is extensive.

The teachers seemed to have prepared classroom materials thoroughly, and teaching techniques in general appear to be sound and appropriate, focused on the intended transition to English.

The center has also provided individual and group guidance bilingually to participating students by a bilingual teacher-counselor. The school has followed-up mainstreamed students with transitional courses

that were appropriate to their needs. The center, in addition, has provided two bilingual community-liaisons to help students and their families on educational and school procedural matters.

There have been visible accomplishments in the area of community relations as evidenced by the close cooperation and active participation of community and parents. They implemented various cultural and educational activities successfully, which were sponsored by the center. The center's services for parents and adults, such as English classes, were received with enthusiasm.

In summary, the evaluation team is of the opinion that the center has been administered by an extremely competent director; has a faculty and staff that has done outstanding work in curriculum development; and has demonstrated effective teaching and dedication to bilingual education in serving both the participating students as well as the community.

The following recommendations are offered with a view to implement the bilingual education program even more effectively:

1. The office space of the center should be expanded. The area currently assigned is too small for the staff to do office work and to counsel students. There is an urgent need for additional space to ensure offering more efficient delivery of program services.

2. The program could be improved by increasing the teaching staff for the purpose of reducing class size, broadening the course offerings, and more supportive services.

3. Classroom assignments should be revised to make classroom locations more convenient than at present. Teachers now have to travel

from one to the other end of the school between classes, a difficult feat to accomplish in a four-minute intersession.

4. English usage should be maximized in teaching and counseling in order to meet the goal of the program within its limited time span.

5. In view of the fact that there has been greater demand than provision for adult classes, it is desirable that more classes, particularly E.S.L. for parents, be scheduled.

6. It would be particularly useful to participating students, parents, and community if the center were to provide services related to housing, career training, job placement, and legal aid for immigration. These community center-type services are necessary, and it is felt that the logical place from which to receive them would be where parents have to attend for English language and American citizenship classes.